

REC 4(ORNL-tr-2439) 1NUCLEAR MAGNETIC RESONANCE
STUDIES OF METAL HYDRIDES. 6Spalthoff, W. 780 Translated for
Oak Ridge National Lab., Tenn., from 15Z. Phys. Chem. (Frankfurt);
29: 258-76(1961). 2019p. 24Dep. NTIS.

26chemistry (physical) 2107D

28MN-4 29P NSA

Defects in Ternary Ion Crystals, by
H. Schmalzried, C. Wagner.
GERMAN, per, Zeit. Phys. Chem., Vol 31,
1962, pp 198-221.
NLL Ref: 9022.09 (4804)

CEC 4804

Sci-Phys
Mar 69

376,824

On the Uranium-Hydrogen System and the
Kinetics of Uranium Hydride Formation,
by E. Wicks and Kl. Otto, 39 pp.
GERMAN, per, Z. Phys. Chem, Vol 31, 1962,
pp 222-248.
P911408867
AEC LA-TR-67-82

Sci-Chemistry
Feb 68

347,497

Determination of Diffusion Coefficients Taking
Into Account A Phase Boundary Reaction, by
R. Haul, G. D. Duesbagen, 84 pp.

GERMAN, par, Z. Physikalische Chemie, Vol XXXI,
1962, pp 309-320. 9212840

AEC-UCEL-tr-962(L)

Sci-Phys
Jan 64

248,348

The Electron Spectra of 3,4-Benzacinnoline. Observation
of $A \pi^* \rightarrow n$ Fluorescence, by E. Lippert, W. Voss,
9 pp.

GERMAN, per, Zeitschrift fuer Physikalische Chemie,
Vol XXXI, 1962, pp 324-327. 9213062

ABC-EP-Tr-1040

Sci - Phys

Oct 63

345,208

REC (UCRL-Trans-10565) PHOTOCHEMICAL REACTION
BETWEEN FLUORINE AND OZONE. Staricco, E. H.; Sicer,
J. E.; Schumacher, H. J. ¹⁶Translated for Univ. of California
Lawrence Livermore Lab., Livermore, from ¹¹Z. Phys. Chem.
(Frankfurt); 31: 385-96(Mar 1962). ²⁰13p. ²⁴Dep. NTIS.

²⁵

²⁶Chemistry (Inorganic); translations ²⁷07B

²⁸MN-4 ²⁹P NSA

The Kinetics of the Iodine Sulfite Reaction, by
G. Von Burnau, M. Eigen.

GERMAN, per, Zeitschrift fur Physikalische Chemie
Neue Folge, Vol XXXII, No 1, 2, 1962, pp 27-59.

MIE 2-6-63

Sci - Phys

May 63

231,999

Kangro, Walther and Groeneveld, Amicus.
CONCENTRATED AQUEOUS SOLUTIONS, I
[Konzentrierte Wässrige Lösungen, I], [1963] 20p 20refs
Order from SLA \$1.60 TT-63-20709

Trans. of Zeitschrift für Physikalische Chemie
[Frankfurt] (West Germany) 1962, Neue Folge, v. 32
[no. 1/2] p. 110-126. (Abstract available)

DESCRIPTORS: *Solutions, *Thermochemistry, Vapor
pressure, *Evaporation, *Enthalpy, Osmotic pressure,
Solubility.

The vapor pressures were determined of water over
concentrated solutions of 14 electrolytes and 4 non-
electrolytes at 20° C and 25° C under use of a statical
method, with accuracies within a few thousands of a
Torr. From these values were calculated: The
enthalpies of evaporation of the water at 22.5° C, the
(Chemistry--Physical, TT, v. 11, no. 4) (over)

TT-63-20709

I. Kangro, W.
II. Groeneveld, A.

Office of Technical Services

Measurement of the Diffusion Coefficient in Solids
at Different Temperatures With a Continuous Method Using
the Technique of Radioactive Surfaces, by
J. Molting, 10 pp.

GERMAN, per, Zeit Physik Chem, Vol XXXII, 1962,
pp 154-167, 9207663.

ABC-Tr-5761
ATS-893-GJ

Sci - Phys
Jun 63

231,922

Reaction Mechanism in the Formation of Spinel
in the Solid State, by Hermann Schmalzried, 23 pp.

GERMAN, per, Zeit. fuer Physikalische Chemie,
Vol XXXIII, pp 111-128, 1962. 9215578

AEC-UCRL-Tr-961(L)

Sci-Phys
Nov 63

241,372

The Kinetics of the Sulfidation of Silver,
by St. Mrowec, 7 pp.

GERMAN, per, Z. Phys. Chem. N.F. 32,
1962, pp. 212-218.

*NBS TT 70-57830

Sci/mat

Jun 70

Kangro, Walther.
CONCENTRATED AQUEOUS SOLUTIONS. II
[Konzentrierte Wässrige Lösungen, II]. [1963]31p13refs
Order from SLA \$3.60 TT-63-20708

Trans. of Zeitschrift für Physikalische Chemie
[Frankfurt] (West Germany) 1962, Neue Folge, v. 32,
no. 5/6, p. 273-295. (Abstract available)

DESCRIPTORS: *Solutions, *Thermochemistry,
Water, Electrolytes, *Dissociation, *Enthalpy,
*Chemical equilibrium, Vapor pressure.

On the base of the assumption that the dissociation
energy is equal (with opposite sign) to the work
required to decompose the water associates during
the dissociation, and using the theory of the water
associates of Bucken as a base of the calculations,
the dissociation degrees of a few 1-1 electrolytes are
(Chemistry--Physical, TT. v. 11, no. 4) (over)

TT-63-20708

I. Kangro, W.

Office of Technical Services

Electrotransport in Ag-Zn Alloys, by
H. G. Feller, et al, 22 pp.
GERMAN, per, Zeitschrift fur Physikalische
Chemie Neue Folge, vol 33, 1962, pp.298-319
*CFSTI TT 70-58097
AVAILABLE FROM NBS ONLY

Sci/chem
Apr 70

Investigation of Uniform Dissolution and
Pitting of Aluminum Electrodes by H.
Kaesche, 20 pp.

GERMAN, Zeitschrift ~~1962~~ Physik, Chemie,
~~1962~~ Frankfurt, 1962, No 34, ~~87-108~~
pp. 87-108. 9213636 - Pub. in diff.

AEC-tr-5888

Sci - Chem
Oct 63

Staricco, E. H., Siere, J. E., and Schumacher, H. J.
KINETICS OF THE PHOTOCHEMICAL REACTION BE-
TWEEN SULFUR TRIOXIDE AND FLUORINE. [1963]

7p 2refs

Order from SLA \$1.10

TT-64-10959

Trans. of Zeitschrift für Physikalische Chemie [Frank-
furt] (West Germany) 1962 [Neue Folge] v. 33, no. 1/3,
p. 122-128.

TT-64-10959

- I. Staricco, E. H.
- II. Siere, J. E.
- III. Schumacher, H. J.

(Chemistry--Physical, TT, v. 11, no. 11)

Office of Technical Services

Gatti, R., Staricco, E., Sicre, J. E., and Schumacher, H. J.

THE PHOTOCHEMICAL DECOMPOSITION OF F_2O .

[1963] 5p 3refs

Order from SLA \$1.10

TT-64-10962

Trans. of Zeitschrift für Physikalische Chemie

[Frankfurt] (West Germany) 1962 [Neue Folge] v. 35,
no. 4/6, p. 343-347.

TT-64-10962

I. Gatti, R.

II. Staricco, E.

III. Sicre, J. E.

IV. Schumacher, H. J.

(Chemistry--Physical, TT, v. 11, no. 11)

Office of Technical Services

Dosimetry of Fast Electrons Using
Iron Sulfate, H. Liesem, W. Pohlitz.
GERMAN, per, Zeit. Phys. Chem., Vol 35,
No 4/6, 1962, pp. 352-67.
NLL Ref: 5809.95(T6103)

Sci-Chem
July 69

~~377 757~~
387 428

Noller, H., Hantke, Elfriede, and Schwab, G.-M.
ON THE DIFFUSION KINETICS OF HETEROGENEOUS CATALYSIS. II. RELATIONSHIP OF THE ACTIVATION ENERGY AND PORE RADIUS; ON DIFFERENTIATION OF DIRECT AND INDIRECT EFFECTS OF DOSING. 13p 23refs
Order from SLA \$1.60

TT-64-16676

Trans. of [Zeitschrift für Physikalische Chemie
[Frankfurt] (West Germany) 1963, Neue Folge, v. 36,
no. 1/2, p. 103-117].

(Chemistry--Physical, TT, v. 12, no. 4)

TT-64-16676

- I. Noller, H.
- II. Hantke, E.
- III. Schwab, G.-M.
- IV. Title: Relationship ...
- V. Title: On differentiation ...

Office of Technical Services

The Critical Supersaturation of Slightly
Soluble Salts Homogeneous Precipitation
by the Two-Phased Method, by A. Fabrikanos,
K. H. Lieser.

GERMAN, per, Z fur Phys Chem, Vol XXXVI,
1963, pp 232-235. *p911678766*
AEC-RFP-tr-15

Sci - Chem
Jul 66

305,843

Electrolytic Studies of Hydrogen Diffusion in
Homogenous PD-Ag-H Alloys, by A. Kussner.

GERMAN, per, Zeit Phys Chem, Vol 36, 1963,
pp 383-386.

*Nat Bur Stand TT 70-57817

Sci-Phys
Jul 70

TT-63-20986

Gatti, R., Staricco, E. H., Sicre, J. E., and
Schumacher, H. J.

THE PHOTOCHEMICAL REACTION BETWEEN
FLUORINE MONOXIDE AND SULFUR TRIOXIDE.

[1963] 10p 3refs

Order from SLA \$1.10

TT-63-20986

Trans. of Zeitschrift für Physikalische Chemie
[Frankfurt] (West Germany) 1963, Neue Folge v. 36,
no. 3/4, p. 211-220.

DESCRIPTORS: *Photochemistry, *Fluorine compounds,
Monoxides, *Sulfur compounds, Oxides, Peroxides,
Fluorides, Reaction kinetics.

The photochemical reaction between fluorine monoxide
and sulfur trioxide in light of the wave-length of 365 m μ
was investigated at temperatures between 20 and 45°C.
In the reaction, sulfurylfluoride fluoroperoxide (F₂SO₄)
(Chemistry--Physical, TT, v. 11, no. 9) (over)

- I. Gatti, R.
- II. Staricco, E. H.
- III. Sicre, J. E.
- IV. Schumacher, H. J.

Office of Technical Services

Measuring the Diffusion Coefficient from X-Absorption Studies, by W. Biermann.

GERMAN, per, Zeit Phys Chem, Vol 37, 1963, pp 137-149.

*Nat Bur Stand TT 70-57797

Sci-Phys
Jul 70

On the Measurement of Surface Diffusion
of Ca Atoms Over Faces of Different
Orientation of Some Solid Crystals,
by K. Neumann, 17 pp.
GERMAN, per, Z. Phys. Chem. N.F. 37,
1963, pp. 150-166.
*NBS TT 70-57832

Sci/chem
Jun 70

Critical Fluctuations and Critical Opalescence
of Binary Systems, I. Theory of Critical Fluc-
tuations, by A. Münster and Ch. Schneeweiss.
GERMAN, per. Z. Phys. Chem., New Series 37, 1963,
pp 353-368.
P911341367
AEC ORNL-TR-1734

~~Sci-Nucl-Sol~~ *Chem*
Nov 67

343,650

Critical Fluctuations and Critical Opalescence
of Binary Systems, II. Critical Opalescence of
X-Rays and Visible Light, by A. Münster and Ch.
Schneeweiss.

GERMAN, per. Ztschr. f. Physikal. Chem., New
Series 37, 1963, pp 369-386.

P911341467

AEC ORNL-TR-1735

Sci/Chem
Nov 67

343.626

Equilibrium Measurements of the Reaction of
Carbon Tetrachloride with Calcium Fluoride
to Form Trichlorofluoromethane, by G.
Schiemann.

GERMAN, per Z. phys. Chem. Neue Folge, Vol.
38, 1963, pp 56-69
GB 39/HO 2273

Sci -
Aug 67

337-567

Ion and Electron Conduction in Binary Oxides and Their
Study by Means of E.M.F. Measurements, by
Hermann Schmalzried, 17 pp.
GERMAN, per, Z. fuer Physikalische Chemie, Vol XXXVIII,
1963, pp 87-102. 9222642
AEC-SC-T-62-44-44

BISI 4784

Sci-Nucl Sci
Jun 64

260,933

Transport Numbers at High Electrolyte Concentrations. I. Fundamentals, by R. Haase, 25 pp.
GERMAN, per, Z fuer Physikalische Chemie, Vol XXXIX,
1963, pp 27-44.
AEC-UCRL-Tr-1070(L)

Sci-Phys
Dec 64

269,949

ALSO TT-65-18007

Doping Organic Photoconductors, by Hans
Meier, Wolfgang Albrecht, 15pp.
GERMAN, per, Zeitschrift fur Physikalische
Chemie, Vol 39, No 3/4, pp 249-261.
CFSTI TT-64-20087.

322,639

Sci - Materials
Mar 67

Photochemical Reactions of Fluorine and Fluorine Mon-
oxide with Thionylfluoride, by E. Castellano,
H. J. Schumacher.

GERMAN, per, Z fur Physikalische Chemie, Vol XL,
No 1, 2, 1964, pp 51-63.

Dept of Navy 4113/APL-JHU T 1237

Sci p Hy
Sci - Phys
Jun 65

279,609

Photochemical Reactions of Fluorine and Fluorine Mon-
oxide with Peroxydisulfuryl Fluoride ($\text{F}_2\text{S}_2\text{O}_6$),
R. Gatti, J. E. Sere, et al.
GERMAN, per, Z. fuer Physikalische Chemie, Vol XL,
No 1, 2, 1964, pp 127-135.
Dept of Navy 4114/APL-JHU T 1244

Sci - Phys
Jun 65

279,610

Propagation of Detonation in Hydrazine Vapour, by H.J. Heinrich.

GERMAN, per Z. Phys. Chem. N.F. Vol. 42, No. 3/4, 1964,
pp 149-165
QB 82/5076

Sci -
Aug 67

339-506

TT-65-13756

Field 7D

Hartmann, H.; Bosche, H. G.; Heydtmann, H.
EFFECT OF THE LENGTH OF CHAIN ON THERMAL
DECOMPOSITION KINETICS OF PRIMARY CHLOROAL-
KANES. 13p, 39refs.

Order from SLA: \$1.60 as TT-65-13756

Trans. of Zeitschrift fuer Physikalische Chemie
Frankfurt (West Germany) v42 n5/6 p329-43 1964.

MR 664

Bu. of Mines P.O. 3180156

R-8684-D

13 Sept 67

Ionic and electronic conduction in some rare earth oxides

By: TAPE, V. B.

From: Frankfurt, Zeitschrift fur physikalische chemie

Vol. 43, 1904:30-32

(3 pp)

German - est for wds:

Please translate and type 1 original copy only

Document can be cut.

AEC (ANL-Trans-880) IR-SPECTROSCOPIC INVESTIGATIONS OF THE CRYSTALLINE TETRAHYDRATE OF HYDROGEN BROMIDE $H_2O_4 \cdot Br$. Rudolph, Joachim; Zimmermann, Herbert. Translated for Argonne National Lab., Ill., from *Z. Phys. Chem.* (Frankfurt); 43: 311-26(1964). 120¹⁴p. 24 Dep. NTIS.

26chemistry (inorganic); translations 2707B

28MN-4 29P NSA

Meyerhoffer, W. and Saunders, A. P.
THE EQUILIBRIUM PHENOMENA OF RECIPROCAL
SALT PAIRS IN SIMULTANEOUS PRESENCE OF A
DOUBLE SALT; PT. I. [1962] 40p. (14 figs. 14 tables
omitted).

Order from SLA \$3.60

62-14517

Trans. of Z[eitschrift für] Phys[ikalische] Chem[ie]
Leipzig (Germany) 1899, v. 28, p. 453-493.

DESCRIPTORS: Chemical equilibrium, Salts.

62-14517

I. Meyerhoffer, W.
II. Saunders, A. P.

(Unannounced)

Office of Technical Services

Luther, Robert and Goldberg, Emanuel.
CONTRIBUTION TO THE KINETICS OF PHOTO-
CHEMICAL REACTIONS. I. THE INHIBITION BY
OXYGEN OF PHOTOCHEMICAL CHLORINATION
REACTIONS IN RELATION TO PHOTOCHEMICAL
REDUCTION, DEDUCTION AND ACTIVATION. [1963]
[15]p. 26 refs.

Order from SLA \$1.60

63-10978

Trans. of Zeitschrift für Physik
Chemie, Leipzig (Germany) 1906, v. 56, p. 43-56.

DESCRIPTORS: *Photochemistry, Reaction kinetics,
*Chlorination, Inhibition, Oxygen.

(Chemistry--Physical, T1, v. 10, no. 2)

63-10978

I. Luther, R.
II. Goldberg, E.
III. Title: Inhibition ...

Office of Technical Services

TT-64-14278

Lewis, William C. McC.
ADSORPTION AND ITS RELATION TO THE GIBBS
THEORY. 3. THE ADSORBING MERCURY SURFACE
(Die Adsorption in Ihrer Beziehung zur Gibbschen
Theorie. Dritte Abhandlung: Die Adsorbierende Queck-
silberoberfläche). [1963] [39p] (foreign text included)
12refs
Order from SLA \$3.60

TT-64-14278

Trans. of Zeitschrift für Physik[alische] Chemie
[Leipzig] (Germany) 1910, v. 73, p. 129-147
(originally pub. in English).

DESCRIPTORS: *Thermochemistry, *Phase studies,
*Mercury, Surface properties, Absorption.

(Chemistry--Physical, TT, v. 11, no. 7)

I. Title: Gibbs phase-rule
I. Lewis, W. C. M.
II. Title: Adsorbing...

Office of Technical Services

62-18937

Novak, J.
THE MAGNESIUM CARBIDES [PT.] I. [1962] [27]p.
3 refs.

Order from SLA \$2.60

62-18937

Trans. of Z[eitschrift f[ur] Phys[ikalische] Chem[ie]
Leipzig (Germany) 1910, v. 73, p. 513-546.

DESCRIPTORS: *Magnesium compounds, *Carbides,
Water, Chemical reactions, Decomposition, Tempera-
ture, Acetylenes, Propynes, Quantitative analysis.

The present investigation proves the existence of two
distinct magnesium carbides, MgC_2 and Mg_2C_3 , which
is the first and thus far only instance where a metal
forms two simple carbides. This is the more interest-
ing since both carbides, when decomposed with water,
furnish two different alkynes, acetylene and methyl-
acetylene. Both carbides can be prepared very easily,
(Chemistry--Physical, TT, v. 9, no. 8) (over)

I. Novak, J.

Office of Technical Services

The Behaviour of Solid and Molten Copper with Respect
to Gases, by A. Sieverts, W. Krumhans, 41 pp.

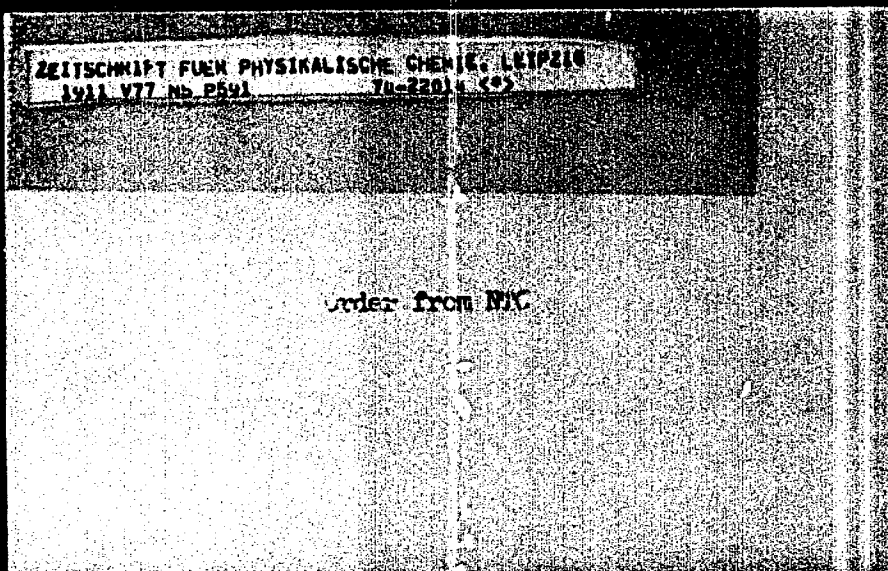
GERMAN, per, Z fuer Physik Chem (Leipzig), Vol LXXIV,
1910, pp 277-307.

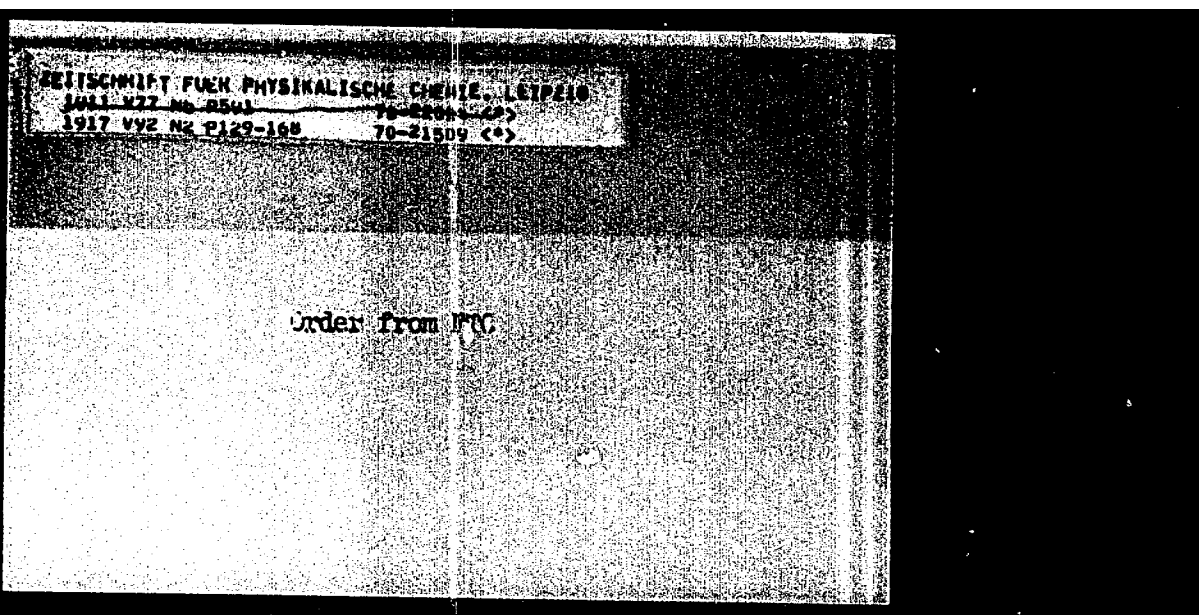
#P
AEC Tr 276
^

Sci - Chem

Oct 59

98,903





62-18239

I. Plotrowski, W. von.

Plotrowski, W. von.
THERMAL EXPANSION OF PARAFFIN AND PARAP-
FIN SOLUTIONS. [1962] 6p. (formulae table refs.
omitted).

Order from SLA \$1.10

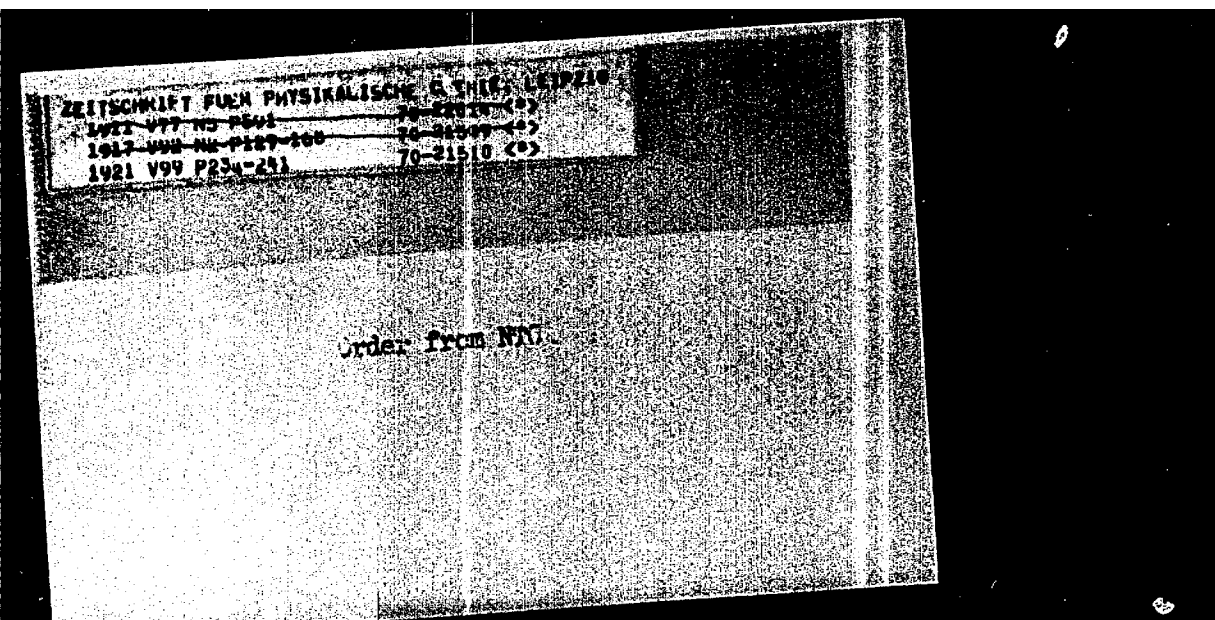
62-18239

Trans. of Z[e]i[t]s[c]hrif[t] f[ür] Physik[al]ische Chemie
[Leipzig] (Germany) 1919, v. 93, p. 596-606.

DESCRIPTORS: *Hydrocarbons, *Petroleum, *Tar,
Solutions, *Thermal expansion, Weighing, Density,
*Methanes.

In the present article, a comparison has been made of
densities of nine petroleum paraffins having solidifying
points between 50.3° and 64.0° (which were determined
as a function of the temperature) with expansion coef-
ficients of lignite-tar paraffins calculated according to
the work of Zietkowski. It was found that the expansion
(Chemistry--Physical, TT, v. 9, no. 6) (over)

Office of Technical Services



Biltz, Wilhelm and Klemm, Wilhelm.
SOME FUSED ELECTROLYTES. [1963] [37p] 36refs
Order from SLA \$3.60 TT-63-20776

Trans. of Z[eitschrift für] Physik[allgemeine] Chemie,
Leipzig [Germany] 1924, v. 110, p. 318-342.

DESCRIPTORS: *Fused materials, *Electrolytes,
*Lithium compounds, *Rubidium compounds, *Cesium
compounds, *Copper compounds, *Magnesium com-
pounds, *Zinc compounds, *Cadmium compounds,
*Chlorides, Electrolysis, Electrical properties,
Physical properties.

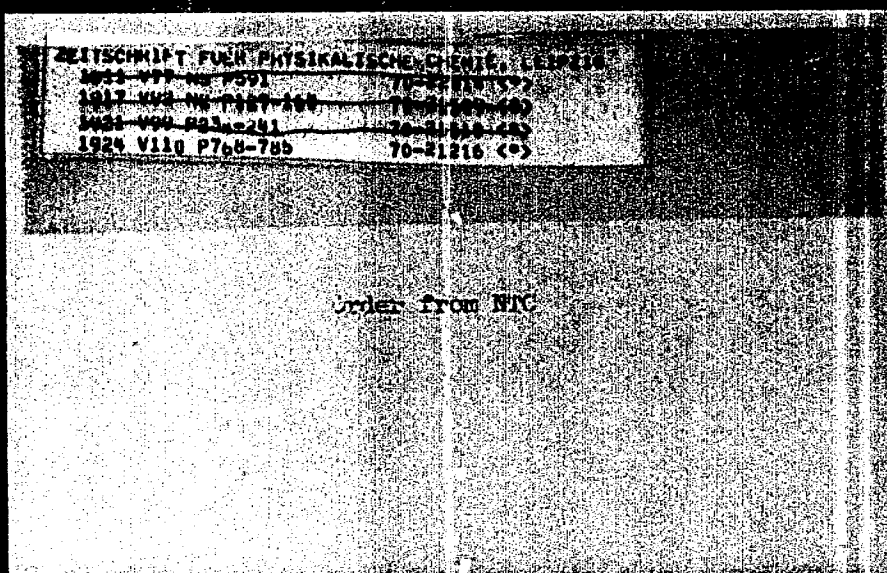
(Chemistry--Physical, TT, v. 11, no. 3)

TT-63-20776

I. Biltz, W.
II. Klemm, W.

AEC-A1-Tr-46
(9223548)

Office of Technical Services



Jellinek, K. and Tomoff, G.
EQUILIBRIA BETWEEN SODIUM AND POTASSIUM
AND THEIR CHLORIDES IN THE LIQUID, MOLTEN
STATE, AND THE PREPARATION OF LEAD ALLOYS
OF ALKALINE EARTHS. [1963] 19p. (figs. tables
refs. omitted).

Order from SLA \$1.60

65-16176

Trans. of Zeitschrift für Physikalische Chemie
[Leipzig] (Germany) 1924, v. 111, p. 234-250

DESCRIPTORS: *Sodium, *Potassium, *Chlorides,
Liquid metals, *Chemical equilibrium, Fused
materials, *Lead alloys, *Alkaline earth metals,
Alloys, Phase studies.

(Chemistry--Physical, TT, v. 10, no. 7)

65-16176

I. Jellinek, K.
II. Tomoff, G.

Office of Technical Services

Antropoff, A. v. and Sommer, W.
THE SPACE DIAGRAM OF THE TERNARY SYSTEM
NaOH-NaCl-H₂O. Thesis, Institute of Technology,
Karlsruhe, 1925. [1963] 40p. (figs. omitted) 36 refs.
Order from SLA \$3.60 63-18135

Trans. of Zeitschrift für Physik[atische] Chemie
[Leipzig] (Germany) 1926, v. 123, p. 181-198.

DESCRIPTORS: *Sodium compounds, *Hydroxides,
*Chlorides, Water, *Phase studies, Fused materials.

(Chemistry--Physical, TT, v. 10, no. 11)

63-18135

I. Antropoff, A. v.
II. Sommer, W.

Office of Technical Services

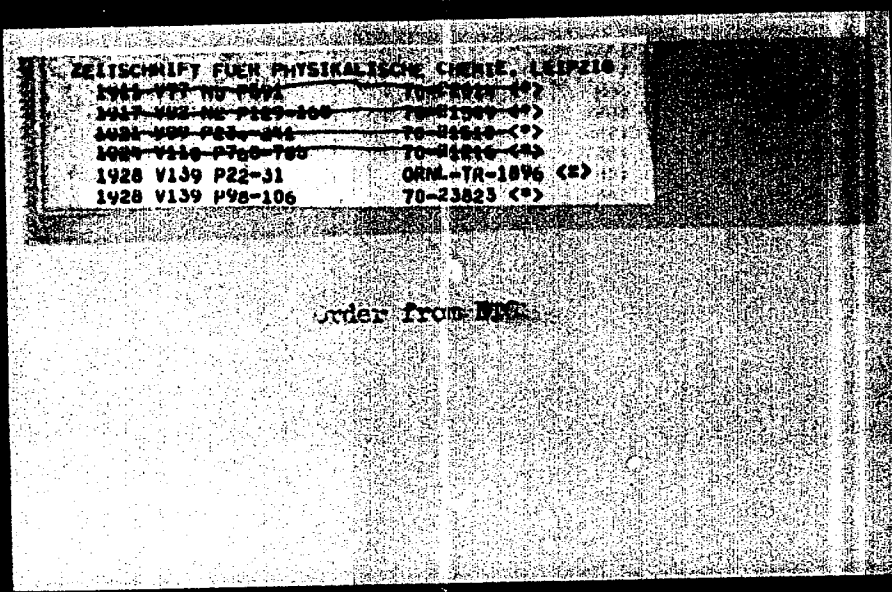
On the Absorption Spectra of Negative Halogen
Ions in Solution, by J. Franck, G. Scheibe, 9 pp.
GERMAN, per, Z Phy Chem (Leipzig), Vol 139, 1928.
pp 22-31.

AEC/ORNL-Tr-1896-70

Sci/Phy

Apr 70

105 654



SC-T-713074) CRYSTAL STRUCTURE OF ACID
COMPOUNDS OF GRAPHITE. Ruedorff, W. Translated by
Pat Newman (Sandia Labs., Albuquerque, N. Mex.), from
Z. Phys. Chem. (Leipzig); 45: No. 1, 42-68 (1939). 48p.

chemistry (physical); crystallography; translations

ND-4 P RC

Unlimited

ZEITSCHRIFT FÜR PHYSIKALISCH CHEMIE

1911 V17 N5 P595	70-23824-41
1912 V18 N2 P127-166	70-23824-41
1921 V19 P234-261	70-23824-41
1924 V110 P765-785	70-23824-41
1928 V110 P22-31	70-23824-41
1928 V110 P98-106	70-23824-41
1941 V189 P171-182	70-23824-41

Order from RNC

The Separation Tube. V. Preparation of O^{18} ,
by H. Clausen, G. Dickel, 20 pp.

GERMAN, ref, Z. Physik Chem, Vol CXCLII,
1944, Leipzig, pp 274-286.

AEC-Tr-3692

Sci - Chem
Jul 59

92,054

63-14053

I. Sanger, E.

Sanger, Eugen.
THEORY OF PROPELLANT BURNING. [1963] 9p.
(figs. omitted).
Order from SLA \$1.10

63-14053

Trans. of Zeitschrift für Physikalische Chemie
[Leipzig] (East Germany) 1951, v. 197, p. 265-276.

DESCRIPTORS: *Propellants, Combustion, Theory,
Powders, Thermochemistry, Velocity, Pressure,
Temperature, Solids.

(Chemistry--Physical, TT, v. 10, no. 5)

Office of Technical Services

The Modifications of Na_2BeF_4 and Their Relationships
to Those of Ca_2SiO_4 . Investigations of Silicate-
Type Struggles III., by Erich Thilo, Friedrich
Liebau, 32 pp.

GERMAN, per, Z Physik Chem, Vol CXIX, 1951,
Leipzig, pp 125-141.

AEC NP-tr-293

Sci - Phys, Chem
Feb 60

107,560

62-12219

Vetter, K. J.
THE MECHANISM OF FORMATION OF THE IODINE-
IODIDE OXIDATION-REDUCTION POTENTIAL AT
PLATINUM DERIVED FROM THE ALTERNATING
CURRENT POLARIZATION. [1961] 11p.
Order from ATS \$13.50 ATS-45N56G

Trans. of Zeitschrift für Physik[allache] Chemie,
Leipzig] (East Germany) 1952, v. 199, no. 5/6,
p. 285-299.

DESCRIPTORS: *Iodine, *Iodides, Oxidation-reduction
reactions, *Platinum, Alternating current,
Polarization.

(Chemistry--Physical, TT, v. 7, no. 6)

I. Vetter, K. J.
II. ATS-45N56G
III. Associated Technical
Services, Inc., East
Orange, N. J.

Office of Technical Services

Klee, H. and Witte, H.
THE MAGNETIC SUSCEPTIBILITIES OF TERNARY
MAGNESIUM ALLOYS AND THEIR INTERPRETATION
ACCORDING TO THE ELECTRON THEORY OF
METALS. [1961] 20p.
Order from ATS \$24.95

ATS-93N52G

Trans. of Z[eitschrift (ür) Physik[allische] Chem]ie,
Leipzig (East Germany) 1953/54, v. 202, no. 5/6,
p. 352-378.

DESCRIPTORS: *Magnesium alloys, Magnetic
susceptibility, Metals, Electrons, Theory.

(Physics--Magnetism, TT, v. 6, no. 8)

61-25031

- I. Klee, H.
- II. Witte, H.
- III. ATS-93N52G
- IV. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS-912-GJ

195198

Office of Technical Services

The Electrical Conductivity of Glass
Part I. The Conductivity of Mixed
Glasses, by B. Lengyel, Z. Boksay.
GERMAN, per, Zeitschrift fuer Physika-
lische Chemie (Leipzig), Vol 203, No
1/2, 1954, pp. 93-112.
NTC 69-11735-07D

Sci-Chem
July 69

386,642

A Study of the Heterogeneous Liquid-Vapor
Equilibrium. Part 1, A General Equation of State
for Saturated Vapors, by E. Kordes,

GERMAN, per, Z Physik Chem, Vol CCIII, No 5-6,
1954, pp 2655274.

ATS 472-GJ

Sci - Chem

Aug 60

123,362

63-12759

Wilke, K.-T.
THE ACTIVATION OF GAS CRYSTALS. [Feb 63] 5p.
Order from ATS \$6.00 ATS-25P66G

Trans. of Zeitschrift für Physikalische Chemie
Leipzig (East Germany) 1955, v. 205, p. 73-77.

DESCRIPTORS: Crystals, *Cadmium compounds,
Sulfides.

(Physics--Solid State, TT, v. 9, no. 7)

I. Wilke, K.-T.
II. ATS-25P66G
III. Associated Technical
Services, Inc.,
East Orange, N. J.

Office of Technical Services

On Investigations for the Purpose of Explaining
the Adhesion of Carbon Layers on Porcelain,
by G. Becherer, 17 pp.

GERMAN, per, Z. Phys Chem, Vol CCV, 1956,
pp 208-216.

SLA 57-2461

Jul 58

69, 948

On Invest^sigations for the Purpose of Ex-
plaining the Adhesion of Carbon Layers
on Porcelain, by G. Becherer, 11 pp.

GERMAN, per, Z. Phys Chem, Vol CCV, Leip-
zig, 1956, pp 253-260.

SLA 57-3182

Bci

Aug 58

72,470

Carbon Layers With Diamond Structure, by
Heinz Schmellenmeier.
GERMAN, per, Zeitschrift fur Physikalische Chemie,
(Leipzig), Vol 205, No 6, 1956, pp 349-350.

PAEC SC-7-66-0733 P911081666
BDC 6-24-66

Sci/Physics
Jun 66

Remarks on the Classification of the
Crystal Structures of Silicates with
Highly Condensed Ions, by F. Liebau.
GERMAN, per, Zeitschrift fuer Physik-
alische Chemis (Leipzig), Vol 206,
No 1/2, 1956, pp. 73-92.

Sci-Phys.
July 69

386,708

The Evaporation of Oxide Coated Coatings, Part I,
by J. Adam, K. Ettre, Gy. Gergely, P. F. Varadi.

GERMAN, per, Zeitschrift fur Physikalische Chemie,
Vol CUVII, 1957, pp 70-80.

Dept of Int
US Bur of Mines
Petroleum Exper Sta Lib,
Bartlesville, Okla. No 49

Sci - Chem

May 59

87,704

The Determination of Ion Adsorption and Zero-Point
Potential With the Aid of Labelled Atoms, by N. A.
Balaschova, 15 pp.

GERMAN, per, Z fuer Physikalische Chemie, Vol CCVII,
1957, pp 340-349. 9099886

ANC NP Tr-870

Sci - Phys, Chem
May 62

196,772

The Photochemical Reduction of Thionine. The Reversible Photochemical Reduction of Thionine and Methylene Blue by Fe^{++} Ions in an Aqueous Acetone Solution, by R. Havenmann, H. Pietsch, 11 pp.

GERMAN, per, Z. fuer Physikalische Chemie, Vol CCVIII, 1958, pp 201-219. 9075222

ACSIL 1160

Sci - Phys
Apr 61

145,064

63-18651

I. Rysavy, D.

TT-65-18170

Office of Technical Services

Rysavy, D.
A CONTRIBUTION TO THE PROBLEM OF CON-
CENTRATED SUSPENSIONS. [1963] 16p (figs. omitted)
Dresden
Order from SLA \$1.60 63-18651

Trans. of Zeitschrift für Physikalische Chemie
Leipzig (East Germany) 1958, v. 206, p. 293-308.

DESCRIPTORS: *Colloids, *Plasticizers, *Polyvinyl
chloride, Viscosity, Elasticity, Plasticity, Surface
properties.

In mixtures of PVC particles with plasticizers, the
importance of the surface characteristics of the
particles for the flow behavior of the prepared sus-
pensions was proved. The results of these experiments
are in agreement with the results of the studies of
Fryce-Jones on other types of suspensions. In a series
(Chemistry--Physical, TT, v. 10, no. 11) (over)

(2513-D)

On the Dependence of Dark Conductivity of Organic
Dyes on Temperature, by H. Maier, 3/ pp.

GERMAN, per, Zeitschrift für Physikalische Chemie,
Vol CCVIII, No 5/6, Leipzig, 1958, pp 325-360.

JPRS L-1542-D

Sci - Chem
Mar 59

83,156

The Graphitization of Carbon: Part I, by
O. Hauser. UNCL

GERMAN, per, Z fuer Phys Chem, Vol CCIX, No 5/6,
1958, pp 335-351.

NTC 70-23385

RAE 839

Sci - Chem
Jan 60

~~NTC~~

105,778

Electrostenolysis Neutrality Disturbance, and
Ion Desposition on Current-Carrying Membranes,
by L. Milicka.

GERMAN, per. Z. Physik. Chem, Vol. 210, 1959

pp 23-34

EZ

Sci -
Aug 67

335-600

Investigations of High Polymeric Acrylic
Derivatives. 5. Pyrolysis of Polyacrylo-
nitrile, by W. Skoda, J. Schurz, H. Bayzer,
9 pp.

GERMAN, per, Zeit fuer Physik Chem,
Vol CCK, 1959, pp 35-49.

ATS-07M10
ATS-699-GJ

Sci
Mar 62
Vol 4, No 4

187, 767

Conductivity Measurements on Rare Earth Oxides, by
Part I. by I. W. Noddack, H. Walch, W. Dobner,
19 pp.

GERMAN, per, Z Physik Chem (Leipzig), Vol CCXI,
1959, pp 180-193.

ABC Tr-4371

Sci - Phys Chem
Apr 61

149,549

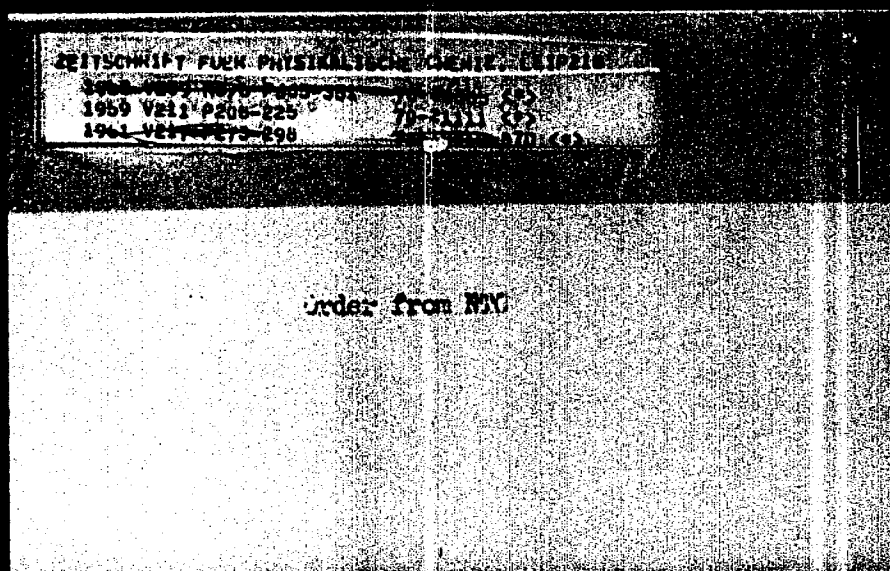
A Few Properties of the Rare Earth Oxides. Part II.
by W. Noddack, H. Walch, 21 pp.

GERMAN, per, Z Physik Chem (Leipzig, Vol CCXI,
1959, pp 194-207.

AEC Tr-4372

Sci - Chem
Apr 61

149,550



Quantum Efficiency of the Internal Photo-
Effect of Organic Dyestuffs, by W. Nodack.

GERMAN, part 2 fuer Physikalische Chemie,
Vol CCXII, 1959, pp 55-70.

NZDIA

234,420

Sci-Chem
May 63

19
Effect of Hydrogen on the Photochemical Reaction
of Organic Systems, by H. Peter.

GERMAN, par. Z. fuer Physikalische Chemie.
Vol CCKII, 1959, pp 73-85.

NZDIA.

Sci-Chem
May 65

234419

Studies on the Biosynthesis of Proteins, II.
Distribution of Amino Acid-Activating Enzymes in
Cell Fractions From Homogenates of Escherichia
Coli B, by D. J. McCorquodale, W. Zillig, 5 pp.

R GERMAN, per, Koppa Seyler's Z fuer Physiologische
Chemie, Vol CCCXV, 1959, pp 6-89.

NIH 9-20-61

Sci - Med

177, 797

Jan 62

The Effects of Alloying Elements on the
Electrochemical Behaviour of Chemically-Resistant
Steels, by H. J. Engell, T. Ramchandran.

GERMAN, per, Z fur Physikalische Chemie,
Vol CCXV, No 3/4, 1960, pp 176-184.

BISI 2448

Sci - Chem

Jan 62

180, 707

Strength of Solids, by S. N. Shurkow.

GERMAN, per, Z. fuer Physikalische
Chemie, Vol CCKIII, No 3/4, 1960, pp 183-
190.

CSIRO

Sci - Chem

191,729

Apr 62

On the Electrical Conductivity of
Synthetic Rutile Single Crystals,
by W Kleber, H. Peibst, W. Shroeder.
GERMAN, per, Zeitschrift fuer Physikalische
Chemie (Leipzig), Vol 215, No 1/2, pp.
63-76, 1960.
NTC 69-11736-20L

Sci-Phys
July 69

386,715

Plasma Composition, Plasma Density, Enthalpy and
Specific Heat of Nitrogen, Nitrogen Monoxide and Air
at 1, 3, 10 and 30 ATM. and at Temperatures From
1000 to 30000°, by K. F. Burhorn, R. Wienecke, 19 pp.

GERMAN, per, Z Physik Chem, Vol CCEV, 1960, pp 269-284.

AEC NP Tr-839

Sci - Phys
May 62
List 66

196,039

Plasma Composition, Plasma Density, Enthalpy and
Specific Heat of Hydrogen and Water at 1, 3, 10 and 30
ATM. and At Temperatures From 1000 to 30000^o, by
K. F. Burhorn, R. Wienecke, 10 pp.

GERMAN, per, Z Physik Chem, Vol CCIV, 1960, pp 285-292.

AEC HP Tr-838

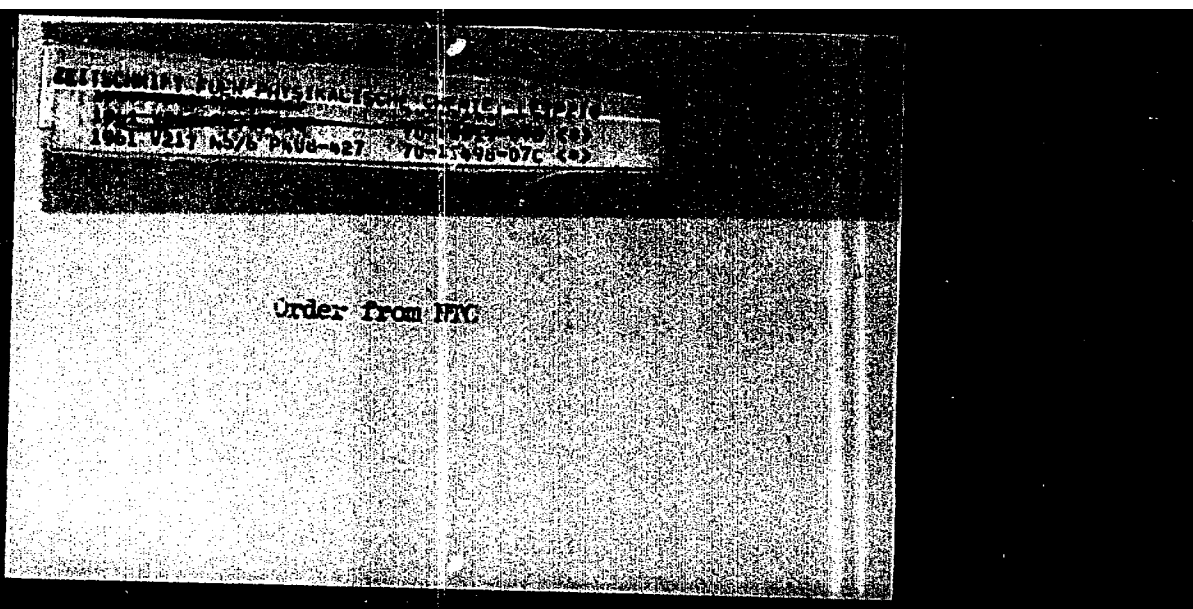
Sci - Phys
May 62
List 66

196, 038

Number of Theoretical Plates of Chromatographic
Columns, by H. Hrapia, E. Leibnitz.
GERMAN, per, Zeit Phys Chem, Vol 217, 1961,
pp 273-298.
AEC ANL-trans-757-69

Sci-Chem
Aug 69

389
~~328~~,992



On the Radiolysis of Liquid Ammonia,
by L. Kolditz.
GERMAN, per, Z fur Physikalische Chemie,
Vol CCXVIII, 1961, pp 108-140. 9232274
AEC-NP-Tr-1351

Sci - Chem
Mar 66

298,516

REFERENCE

The Determination of the Transference Numbers
for Fused Thallium (I)-Nitrate, by I. G.
Murgulescu, D. Topor.

GERMAN, per, Zeitschrift fuer Physikalische
Chemie, Vol CXXIX, Nos 1-4, May 12, 1961,
pp 134-139. 9205007

ABC-Tr-5570

Sci - Chem

Apr 63

~~226,589~~
226,859

Polarographic Investigations with Plutonium, by
D. Hebel, K. Schwabe, 20 pp.

GERMAN, per, Zeitschrift fuer Physikalische Chemie,
Vol CCIX, No 3/4, 1962, pp 240-254. (9208250)

AEC-HP-Tr-981

Sci - Chem

Jun 63

234,296

Potentiometric Investigations on Plutonium, by
K. Schwabe, D. H. Nebel. 3378

GERMAN, per, Z Phys Chemie, Vol CCXX, No 5-6,
1962, pp 332-354. 9208250, 9214716

340

~~*AEC/D/LIB/T-56~~

AEC-NP-TR-981

AEC-NP-TR-1058
(Draft)

Sci - Chem

May 63

Investigations of the Nucleus Formation in Metal
Melts II (Influence of Small Amounts of Foreign
Element Additives on the Supercooling of Antimony
Melts, by W. Mannchen, H. Puttrich, 34 pp,
GERMAN, per, Zeitschrift Physik Chem, No 5/6,
Vol CCXX, 1962, pp 355-378. 9695868
FTD-TT-64-431

Sci - MPM
Feb 65

272,786

Entropy Effects in the Crystallization and
Nucleation of Alanine, by L. Ickert.

GERMAN, per, Zeit. fuer Physikalische
Chemie, Vol 221, 1962, pp 247-258.

IICH-8743

Sci-Chem

Jul 66

305,552

The Treatment of the Polymethin Chain
According to the ICAO-MO Method, by D.
Leupold, 8pp
GERMAN, per, Zeitschrift für Physikalische
Chemie, Vol 223, 1963, No 5/6, pp 405-411
SLA TT-64-18527

Sci - Phy
May 67

326,530

The Theory of the Catalytical Activity
of Mixing Catalysts. The Composition
of the Catalytically Active Centers of
Ni-Mg Mixing Catalysts, by W. P.

Lebedew, 17 pp.

GERMAN, per, Zeitschrift Fur Physikal-
ische Chemie, Vol 225, No 1, 1964,

pp 101-115. 9697548

FTD-TT-65-221

NTC-11497-075

Sci-Nucl Sci

Aug 65

287,053

Studies on Kinetics and the Mechanism of the
Oxidation of Hydrocarbons on the Gas Phase.
Part IV. A Gas Chromatographic Method for the
Analysis of the Intermediate Oxidation Pro-
ducts of n-heptane, by E. Schroeder,
G. Ohlmann.
GERMAN, per, Zeit fur Phys Chem, Vol 225,
1964, pp 168-174.
NTC-69-13284-07C

Sci-Chem
Sept 69

391,684

Study of the Kinetics and Mechanism of the
Oxidation of Gasoline Hydrocarbons in the
Gaseous Phase, Communication No 5. The
Qualitative Gas-Chromatographic Analysis
Of the Intermediate Products of the Oxida-
tion of n-Heptane in the Low Temperature
Field, by E. Schroeder, G. Oehlmann. *35pp*
GERMAN, per, Zeit. fuer Physikalische Chemie,
Vol 225, No 3/4 pp 175-196, 1964.
SLA TT-66-10614

Sci-Chem
Vol 66

305,563

NLL Ref: 5207 (1235)

Concerning the Hydrolysis of UO_2^{+2} in
Dilute Solutions, by M. Bartusek.
GERMAN, per, Z Phys Chem, Vol CCVI, 1964,
pp 309-332. 9232291
AEC-ORNL-Tr-1079

Sci - Chem
Mar 66

298,497

On the Ion Mobility in Anhydrous Sodium Sulfide,
by H. H. Mobius, H. Witzmann, R. Hartung, 14 pp.
GERMAN, per, Zeitschrift für Physikalische
Chemie, Vol 227, 1964, pp 40-55. P91118367
AEC A1 Tr-227

326,476

Sci - Physics
June 67

Contribution to the Knowledge of the Electrolytical
Reduction and the Reactions in the Glow-arc at
the Phase-Boundary Liquid-Gas, by Alfons Klemenc.
GERMAN, per, Zeitschrift für Physik Chemie, 1927,
vol. 130a, pp. 378-389.
SLA-TT-20323

Chem
Aug 66

307,789